

## Powassan Virus Quick Facts

Powassan virus is an arthropod-borne virus (arbovirus) that can cause severe illness in people. While most arboviruses that cause human illness are transmitted by mosquitoes, Powassan virus is transmitted by infected ticks. In the Upper Midwest, Powassan virus is transmitted by the blacklegged tick (*Ixodes scapularis*). Local transmission of Powassan virus has not been detected in Indiana. Please visit the ISDH Powassan virus page for more information (<https://www.in.gov/isdh/28038.htm>).

### Transmission

Powassan virus is transmitted in the Upper Midwest by the blacklegged tick (*Ixodes scapularis*).

### Signs and symptoms

Many people infected with Powassan virus do not develop any symptoms. For those who do, signs and symptoms usually appear within 1–4 weeks of the bite of an infected tick. Signs and symptoms of Powassan virus disease can include:

- Fever
- Headache
- Vomiting
- Weakness
- Confusion
- Loss of coordination
- Speech difficulties
- Seizures

The most severe cases of Powassan virus disease can include encephalitis (inflammation of the brain) and meningitis (inflammation of the membranes that surround the brain and spinal cord). Among people with severe disease, about half will have permanent complications, such as recurrent headaches, muscle wasting and memory problems. Approximately 10% of severe Powassan virus disease cases are fatal.

### Diagnosis

Diagnosis of Powassan virus disease is based upon the patient's signs and symptoms, a history of possible exposure to ticks, and appropriate laboratory testing. If you think that you have Powassan virus disease, contact your health care provider right away.



## Indiana State Department of Health

Epidemiology Resource Center

People who have removed an attached tick sometimes wonder if they should have it tested for tick-borne diseases. Although some laboratories offer this testing, ISDH does not recommend it. If the tick tests positive, it does not necessarily mean that you have been infected; if the tick tests negative, it may provide a false sense of security because you may have been unknowingly bitten by a different tick that was infected.

### **Treatment**

There is no specific medication available to treat Powassan virus disease. People with severe illness may require hospitalization and/or supportive care.

### **Prevention**

The best way to prevent Powassan virus disease is to avoid tick bites. Please see our tick prevention page (<https://www.in.gov/isdh/20491.htm>) for more information.

For more information about Powassan virus, please visit the CDC Powassan virus webpage (<https://www.cdc.gov/powassan/index.html>).

### **Statistics**

Local transmission of Powassan virus has not been detected in Indiana. Most cases of Powassan virus disease in the US have occurred in the Northeast and Upper Midwest.

National statistics for Powassan virus can be found at the CDC Powassan virus Statistics and Maps webpage (<https://www.cdc.gov/powassan/statistics.html>).